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CALIFORNIA LEGISLATURE—2007–08 REGULAR SESSION

ASSEMBLY BILL

No. 1470

Introduced by Assembly Member Huffman
(Principal coauthor: Assembly Member Leno)
(Coauthors: Assembly Members Beall, Carter, DeSaulnier,
Krekorian, Laird, ~~Maze~~, Wolk, and Saldana)
(Coauthors: Senators Corbett, Florez, Kuehl, Romero, Scott, and
Wiggins)

February 23, 2007

An act to add the heading of Article 1 (commencing with Section 2851) to, and to add and repeal Article 2 (commencing with Section 2860) of, Chapter 9 of Part 2 of Division 1 of, the Public Utilities Code, relating to solar energy.

LEGISLATIVE COUNSEL'S DIGEST

AB 1470, as amended, Huffman. Solar energy: Solar Water Heating and Efficiency Act of 2007.

(1) Under existing law, the Public Utilities Commission has regulatory authority over public utilities, including gas corporations. The commission is required to implement elements of the California

Solar Initiative, which modifies the self-generation incentive program for distributed generation resources and provides incentives to customer-side photovoltaics and solar thermal electric projects under one megawatt. The commission is required to award monetary incentives for up to the first megawatt of alternating current generated by solar energy systems that meet the eligibility criteria established by the State Energy Resources Conservation and Development Commission (Energy Commission). The commission is required to adopt a performance-based incentive program for solar energy photovoltaic systems and is authorized to award monetary incentives for solar thermal and solar water heating devices in a total amount up to \$100,800,000.

This bill would establish the Solar Water Heating and Efficiency Act of 2007. The bill would make findings and declarations of the Legislature relating to the promotion of solar water heating systems and other technologies that reduce natural gas demand. The bill would define several terms for purposes of the act. The bill would require the commission to evaluate the data available from a specified pilot program, and, if it makes a specified determination, to design and implement a program ~~to incentivize~~ *of incentives for* the installation of 200,000 solar water heating systems in homes and businesses throughout the state by 2017.

The bill would require the commission, in consultation with the Energy Commission and interested members of the public, to establish eligibility criteria for the solar water heating systems receiving gas customer funded incentives. The commission would be required to establish conditions on those incentives. The bill would specify that, except for the Solar Water Heating Pilot Program in San Diego, only solar water heating technologies that displace electricity are eligible for a portion of California Solar Initiative funds, as determined by the commission. The commission would be required to allocate not less than 10% of the overall funds for installation of solar water heating systems for specified *low-income housing and* affordable housing projects and specify that no moneys be diverted from any existing programs for low-income ratepayers. The bill would specify that the consumer rebates decline over time and be structured to reduce the cost of solar water heating technologies. The Energy Commission, in coordination with the commission, would be required to consider, when appropriate, coupling rebates for solar water heating systems with complementary energy efficient technologies. The commission would be required to report to the Legislature, not later than July 1, 2010, on

the effectiveness of the program. The bill would repeal these provisions on August 1, 2018.

(2) Existing law establishes a surcharge on all natural gas consumed in the state to fund certain low-income assistance programs, cost-effective energy efficiency and conservation activities, and public interest research and development. Existing law requires a public utility gas corporation, as defined, to collect the surcharge from natural gas consumers, as specified. The moneys from the surcharge are deposited in the Gas Consumption Surcharge Fund and are continuously appropriated to specified entities, including to the commission, or to an entity designated by the commission, to fund low-income assistance programs, cost-effective energy efficiency and conservation activities, and public interest research and development not adequately provided by the competitive and regulated markets.

This bill would require the commission to fund the program of the Solar Water Heating and Efficiency Act of 2007, for the service territories of the gas corporations, through a surcharge applied to gas customers in those service territories based on the amount of natural gas consumed, not to exceed \$250,000,000 over the course of the 10-year program. The bill would require the commission to annually establish a surcharge rate for each class of gas customers. The bill would exempt from that surcharge those gas customers participating in the California Alternate Rates for Energy (CARE) or Family Electric Rate Assistance (FERA) programs. ~~The bill would also authorize those individual and families whose household income is at or below 300% of the federal poverty level to apply for an exemption. The bill would require a gas corporation to provide information to their ratepayers no fewer than 2 times per year regarding the availability of these exemptions.~~ The bill would require that the program be administered by the gas corporations or 3rd party administrators, as determined by the commission, and subject to the supervision of the commission.

(3) The bill would require the governing body of each publicly owned utility providing gas service to retail end-use gas customers, to adopt, implement, and finance a solar water heating system incentive program meeting certain requirements, thereby imposing a state-mandated local program.

(4) The California Constitution requires the state to reimburse local agencies and school districts for certain costs mandated by the state. Statutory provisions establish procedures for making that reimbursement.

This bill would provide that no reimbursement is required by this act for a specified reason.

Vote: majority. Appropriation: no. Fiscal committee: yes.
State-mandated local program: yes.

The people of the State of California do enact as follows:

1 SECTION 1. The heading of Article 1 (commencing with
2 Section 2851) is added to Chapter 9 of Part 2 of Division 1 of the
3 Public Utilities Code, to read:

4
5 Article 1. Solar Energy Systems
6

7 SEC. 2. Article 2 (commencing with Section 2860) is added
8 to Chapter 9 of Part 2 of Division 1 of the Public Utilities Code,
9 to read:

10
11 Article 2. Solar Water Heating Systems
12

13 2860. This article shall be known, and may be cited, as the
14 Solar Water Heating and Efficiency Act of 2007.

15 2861. As used in this article, the following terms have the
16 following meanings:

17 (a) “Energy Commission” means the State Energy Resources
18 Conservation and Development Commission.

19 (b) “Gas customer” includes both “core” and “noncore”
20 customers, as those terms are used in Chapter 2.2 (commencing
21 with Section 328) of Part 1, that receive retail end-use gas service
22 within the service territory of a gas corporation.

23 (c) “kW_{th}” means the kilowatt thermal capacity of a solar water
24 heating system, measured consistent with the standard established
25 by the SRCC.

26 (d) “kWh_{th}” means kilowatthours thermal as measured by the
27 number of kilowatts thermal generated, or displaced, in an hour.

28 (e) “New Solar Homes Partnership” means the 10-year program,
29 administered by the Energy Commission, encouraging solar energy
30 systems in new home construction.

31 (f) “Solar heating collector” means a device that is used to
32 collect or capture heat from the sun and that is generally, but need
33 not be, located on a roof.

1 (g) “Solar water heating system” means a solar energy device
2 that has the primary purpose of reducing demand for natural gas
3 through water heating, space heating, or other methods of capturing
4 energy from the sun to reduce natural gas consumption in a home,
5 business, or any building receiving natural gas that is subject to
6 the surcharge established pursuant to Section 2860, or exempt
7 from the surcharge pursuant to subdivision (c) of Section 2863,
8 and that meets or exceeds the eligibility criteria established
9 pursuant to Section 2864. “Solar water heating systems” do not
10 include solar pool heating systems.

11 (h) “SRCC” means the Solar Rating and Certification
12 Corporation.

13 2862. The Legislature finds and declares all of the following:

14 (a) California is heavily dependent on natural gas, importing
15 more than 80 percent of the natural gas it consumes.

16 (b) Rising worldwide demand for natural gas and a shrinking
17 supply create rising and unstable prices that can harm California
18 consumers and the economy.

19 (c) Natural gas is a fossil fuel and a major source of global
20 warming pollution and the pollutants that cause air pollution,
21 including smog.

22 (d) California’s growing population and economy will put a
23 strain on energy supplies and threaten the ability of the state to
24 meet its global warming goals unless specific steps are taken to
25 reduce demand and generate energy cleanly and efficiently.

26 (e) Water heating for domestic and industrial use relies almost
27 entirely on natural gas and accounts for a significant percentage
28 of the state’s natural gas consumption.

29 (f) Solar water heating systems represent the largest untapped
30 natural gas saving potential remaining in California.

31 (g) In addition to financial and energy savings, solar water
32 heating systems can help protect against future gas and electricity
33 shortages and reduce our dependence on foreign sources of energy.

34 (h) Solar water heating systems can also help preserve the
35 environment and protect public health by reducing air pollution,
36 including carbon dioxide, a leading global warming gas, and
37 nitrogen oxide, a precursor to smog.

38 (i) Growing demand for these technologies will create jobs in
39 California as well as promote greater energy independence, protect
40 consumers from rising energy costs and result in cleaner air.

1 (j) It is in the interest of the State of California to promote solar
2 water heating systems and other technologies that directly reduce
3 demand for natural gas in homes and businesses.

4 (k) It is the intent of the Legislature to build a mainstream
5 market for solar water heating systems that directly reduces demand
6 for natural gas in homes, businesses, and government buildings.
7 Toward that end, it is the goal of this article to install at least
8 200,000 solar water heating systems on homes, businesses, and
9 government buildings throughout the state by 2017, thereby
10 lowering prices and creating a self-sufficient market that will
11 sustain itself beyond the life of this program.

12 (l) It is the intent of the Legislature that the solar water heating
13 system incentives created by the act should be a cost-effective
14 investment by gas customers. Gas customers will recoup the cost
15 of their investment through lower prices as a result of avoiding
16 purchases of natural gas, and benefit from additional system
17 stability and pollution reduction benefits.

18 2863. (a) The commission shall evaluate the data available
19 from the Solar Water Heating Pilot Project conducted by the
20 California Center for Sustainable Energy. If, after a public hearing,
21 the commission determines that a solar water heating program is
22 cost effective for ratepayers and in the public interest, the
23 commission shall do all of the following:

24 (1) Design and implement a program applicable to the service
25 territories of a gas corporation, to achieve the goal of the
26 Legislature to promote the installation of 200,000 solar water
27 heating systems in homes and businesses throughout the state by
28 2017.

29 (2) The program shall be administered by gas corporations or
30 third-party administrators, as determined by the commission, and
31 subject to the supervision of the commission.

32 (3) The commission shall coordinate the program with the
33 Energy Commission's New Solar Homes Partnership to achieve
34 the goal of building zero-energy homes.

35 (b) (1) The commission shall fund the program through the use
36 of a surcharge applied to gas customers based upon the amount of
37 natural gas consumed. The surcharge shall be in addition to any
38 other charges for natural gas sold or transported for consumption
39 in this state.

1 (2) The commission shall impose the surcharge at a level that
2 is necessary to meet the goal of installing 200,000 solar water
3 heating systems, or the equivalent output of 200,000 solar water
4 heating systems, on homes and businesses in California by 2017.
5 Funding for the program established by this article shall not, for
6 the collective service territories of all gas corporations, exceed
7 two hundred fifty million dollars (\$250,000,000) over the course
8 of the 10-year program.

9 (3) The commission shall annually establish a surcharge rate
10 for each class of gas customers. Any gas customer participating
11 in the California Alternate Rates for Energy (CARE) or Family
12 Electric Rate Assistance (FERA) programs shall be exempt from
13 paying any surcharge imposed to fund the program designed and
14 implemented pursuant to this article. ~~Additionally, individuals and~~
15 ~~families whose household income is at or below 300 percent of~~
16 ~~the federal poverty level may apply for an exemption from paying~~
17 ~~any surcharge designed and implemented pursuant to this article.~~
18 ~~Gas corporations shall provide information to their ratepayers no~~
19 ~~fewer than two times per year regarding the availability of these~~
20 ~~exemptions.~~

21 (4) Any surcharge imposed to fund the program designed and
22 implemented pursuant to this article shall not be imposed upon the
23 portion of any gas customer's procurement of natural gas that is
24 used or employed for a purpose that Section 896 excludes from
25 being categorized as the consumption of natural gas.

26 (5) The gas corporation or other person or entity providing
27 revenue cycle services, as defined in Section 328.1, shall be
28 responsible for collecting the surcharge.

29 (c) Funds shall be allocated for the benefit of gas customers to
30 promote utilization of solar water heating systems.

31 (d) In designing and implementing the program required by this
32 article, no moneys shall be diverted from any existing programs
33 for low-income ratepayers or cost-effective energy efficiency
34 programs.

35 2864. (a) The commission, in consultation with the Energy
36 Commission and interested members of the public, shall establish
37 eligibility criteria for solar water heating systems receiving gas
38 customer funded incentives pursuant to this article. The criteria
39 should specify and include all of the following:

(1) Design, installation, and energy output or displacement standards. To be eligible for rebate funding, a residential solar water heating system shall, at a minimum, have a SRCC OG-300 Solar Water Heating System Certification. Solar collectors used in systems for multifamily residential, commercial, or industrial water heating shall, at a minimum, have a SRCC OG-100 Solar Water Heating System Certification.

(2) Require that solar water heating system components are new and unused, and have not previously been placed in service in any other location or for any other application.

(3) Require that solar water heating collectors have a warranty of not less than 10 years to protect against defects and undue degradation.

(4) Require that solar water heating systems are in buildings connected to a natural gas utility's distribution system within the state.

(5) Require that solar water heating systems have meters or other kWh_{th} measuring devices in place to monitor and measure the system's performance and the quantity of energy generated or displaced by the system. The criteria shall require meters for systems with a capacity for displacing over $30 \text{ kW}_{\text{th}}$. The criteria may require meters for systems with a capacity of $30 \text{ kW}_{\text{th}}$ or smaller.

(6) Require that solar water heating systems are installed in conformity with the manufacturer's specifications and all applicable codes and standards.

(b) No gas customer funded incentives shall be made for a solar water heating system that does not meet the eligibility criteria.

2865. (a) The commission shall establish conditions on gas customer funded incentives pursuant to this article. The conditions shall require both of the following:

(1) Appropriate siting and high-quality installation of the solar water heating system based on installation guidelines that maximize the performance of the system and prevent qualified systems from being inefficiently or inappropriately installed. The conditions shall not impact housing designs or densities presently authorized by a city, county, or city and county. The goal of this paragraph is to achieve efficient installation of solar water heating systems and promote the greatest energy production or displacement per gas customer dollar.

1 (2) Appropriate energy efficiency improvements in the new or
2 existing home or commercial structure where the solar hot water
3 system is installed.

4 (b) The commission shall set rating standards for equipment,
5 components, and systems to ensure reasonable performance and
6 shall develop standards that provide for compliance with the
7 minimum ratings.

8 2866. The commission shall provide not less than 10 percent
9 of the overall funds for installation of solar water heating systems
10 on low-income *housing* and affordable housing projects undertaken
11 pursuant to Section 50052.5, 50053, 50079.5, or 50199.14 of the
12 Health and Safety Code. If deemed appropriate in consultation
13 with the California Tax Credit Allocation Committee, the
14 commission may establish a grant program or a revolving loan or
15 loan guarantee program for *low-income housing and* affordable
16 housing projects consistent with the requirements of Chapter 5.3
17 (commencing with Section 25425) of Division 15 of the Public
18 Resources Code.

19 2867. (a) The rebates provided through this program shall
20 decline over time. They shall be structured so as to drive down the
21 cost of the solar water heating technologies, and be paid out on a
22 performance-based incentive basis so that incentives are earned
23 based on the actual energy savings, or on predicted energy savings
24 as established by the commission.

25 (b) The commission shall consider federal tax credits and other
26 incentives available for this technology when determining the
27 appropriate rebate amount.

28 (c) The commission shall consider the impact of rebates for
29 solar water heating systems pursuant to this article on existing
30 incentive programs for energy efficiency technology.

31 (d) In coordination with the commission, the Energy
32 Commission shall consider, when appropriate, coupling rebates
33 for solar water heating systems with complementary energy
34 efficiency technologies, including, but not limited to, efficient hot
35 water heating tanks and tankless or on demand hot water systems
36 that can be installed in addition to the solar water heating system.

37 2867.1. Not later than July 1, 2010, the commission shall report
38 to the Legislature as to the effectiveness of the program and make
39 recommendations as to any changes that should be made to the
40 program. This report shall include justification for the size of the

1 rebate program in terms of total available incentive moneys as
2 well as the anticipated benefits of the program in its entirety. To
3 facilitate the understanding of how solar water heating systems
4 compare with other clean energy and energy efficiency
5 technologies, all documents related to and rebates provided by this
6 program shall be measured in both kWh_{th} and therms of natural
7 gas saved.

8 2867.2. Except for the Solar Water Heating Pilot Program in
9 San Diego, solar water heating technologies shall not be eligible
10 for California Solar Initiative (CSI) funds, pursuant to Section
11 2851, unless they also displace electricity, in which case only the
12 electricity displacing portion of the technology may be eligible
13 under the CSI program, as determined by the commission.

14 2867.3. In order to further the state goal of encouraging the
15 installation of 200,000 solar water heaters by 2017, the governing
16 body of each publicly owned utility providing gas service to retail
17 end-use gas customers shall, after a public proceeding, adopt,
18 implement, and finance a solar water heating system incentive
19 program that does all the following:

20 (a) Ensures that any solar water heating system receiving
21 monetary incentives complies with eligibility criteria adopted by
22 the governing body. The eligibility criteria shall include those
23 elements contained in paragraphs (1) to (6), inclusive, of
24 subdivision (a) of Section 2864.

25 (b) Includes minimum ratings and standards for equipment,
26 components, and systems to ensure reasonable performance and
27 compliance with the minimum ratings and standards.

28 (c) Includes an element that addresses the installation of solar
29 water heating systems on low-income *housing* and affordable
30 housing projects undertaken pursuant to Section 50052.5, 50053,
31 50079.5, or 50199.14 of the Health and Safety Code. If deemed
32 appropriate in consultation with the California Tax Credit
33 Allocation Committee, the governing board may establish a grant
34 program or a revolving loan or loan guarantee program for
35 *low-income housing and* affordable housing projects consistent
36 with the requirements of Chapter 5.3 (commencing with Section
37 25425) of Division 15 of the Public Resources Code.

38 2867.4. This article shall remain in effect only until August 1,
39 2018, and as of that date is repealed, unless a later enacted statute,
40 that is enacted before August 1, 2018, deletes or extends that date.

1 SEC. 3. No reimbursement is required by this act pursuant to
2 Section 6 of Article XIII B of the California Constitution because
3 a local agency or school district has the authority to levy service
4 charges, fees, or assessments sufficient to pay for the program or
5 level of service mandated by this act, within the meaning of Section
6 17556 of the Government Code.

O